

## SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS- No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Flt inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Retrieved Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
1	1	102	10,823		9,290									
2	2	102	18,778		11,048									
3	3	102	22,710		11,048			PDP (d)	344					
4	4	102	11,644		9,900			IECM (d)	816					
5	5	102	20,830	14,585						SBS-C ANIK-C	7,211 7,374			
6	6	099	46,662	37,546						TDRS-A	37,546			
7	7	099	31,893	14,949				SPAS (d&r)	3,192	ANIK-C PALAPA B-1	7,374 7,575			

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
8	8	099	25,790	7,445				PFTA (d)	7,350	INSAT	7,445			
9	9	102	33,131											Spacelab Mission
10	41B	099	28,252	15,073						WESTAR VI PALAPA B-2 IRT	7,307 7,556 210			IRT failed to inflate. WESTAR VI and PALAPA B-2 failed to achieve orbit.
11	41C	099	33,831	21,396			4,740	LDEF (d) SMM (r)	21,396 4,740			SMM (r&d)	4,740	SMM launched 2-14-80 on ELV, failed to function 10 months later.
12	41D	103	41,382	30,086						SBS SYNCOM IV-2 TELSTAR	7,383 15,196 7,507			SYNCOM IV-2 failed to activate after deployment.
13	41G	099	17,592	4,949				ERBS (d)	4,949					
14	51A	103	38,003	22,764		2,381				ANIK D-2 SYNCOM IV-1	7,574 15,190	WESTAR VI PALAPA B-2	1,119 1,262	WESTAR and PALAPA B-2 launched on STS 41-B.

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
15	51C	103	(b)											
16	51D	103	28,747	22,576						SYNCOM IV-3 ANIK C-1	15,190 7,386			
17	51B	099	30,748	105						GAS, NUSAT	105			Spacelab Mission
18	51G	103	38,258	22,832				SPARTAN-101 (d&r)	2,217	TELSTAR 3-D ARABSAT-A MORELOS-A	7,546 7,695 7,591			
19	51F	099	33,012					PDP (d&r)	628					Spacelab Mission
20	51I	103	38,884	30,289			15,190	LEASAT-3 (r&d)	15,190	ASC-1 AUSSAT-1 SYNCOM IV-4	7,591 7,508 15,190	LEASAT-3 (r&d)	15,190	LEASAT 3 was originally launched on STS 41-D as SYNCOM IV-2.
21	51J	104	(b)											

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
22	61A	099	30,519	150						GAS-GLOMR	150			SPACELAB Mission
23	61B	104	42,788	27,465						MORELOS- B AUSSAT- 2 SATCOM KU2	7,573 7,634 12,258			
24	61C	102	28,625	12,351						SATCOM KU1	12,351			
25	51L	099	48,633	(c)										
26	26	103	44,601	37,514						TDRS-C/IUS	37,514			
27	27	104	48,633	(b)										
28	29	103	45,316	37,640						TDRS/IUS	37,640			

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
29	30	104	45,823	40,118						MAGELLAN/ IUS	40,118			
30	28	102	(b)											
31	34	104	45,905	38,323						GALILEO/ IUS	38,323			
32	33	103	(b)											
33	32	102	18,317	15,316		21,393		LDEF (r)	21,393	SYNCOM IV-5	15,316	LDEF	21,393	
34	36	104	(b)											
35	31	103	25,517	23,905				Hubble Space Telescope (d)	23,905					

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
36	41	103	46,173	38,604						Ulysses/ IUS/PAM-S	38,604			
37	38	104	(b)											
38	35	102	27,760											
39	37	104	36,800	34,442				GRO (d)	34,442					
40	39	103	21,413	4,873				IBSS (d & r)	(d)4046 (r)3955	CRO A, B, and C MEPC	548 270			
41	40	102	28,114											
42	43	104	46,712	37,575						TDRS/IUS	37,575			

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
43	48	103	17,144	14,388				UARS (d)	14,388					
44	44	104	44,637	37,588						DSP/IUS	37,588			
45	42	103	28,663											
46	45	104	17,683											
47	49	105	32,809	23,346			INTELSAT 8,961	INTELSAT VI (r)	8961	INTELSAT STAGE MOTOR	23,346	INTELSAT VI	8,961	
48	50	102	24,305											
49	46	104	28,585	9,901		1,396		(d) EURECA	9,901	TSS	1,396	TSS	1,396	

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
50	47	105	28,092											
51	52	102	20,132	5,577				(d) CTA	180	LAGEOS	5,397			
52	53	103	26,118	20,789						DOD-1	20,953			
53	54	105	46,540	37,497						TDRS	37,497			
54	56	103	16,439			2,798		(d) SPARTAN (r) SPARTAN	2,840 2,798					
55	55	102	26,881											
56	57	105	19,630	132		9,424						EURECA 1	9,424	SPACEHAB

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
57	51	103	42,637	26,889				ORFEUS/SPAS (d&r)	d) 7,321 r) 7,321	ACTS-TOS	26,889			
58	58	102	23,127											SLS-2
59	62	105	17,401	2304 (HST Solar Wing)			23,905 Hubble Space Telescope	HST (r) HST (d)	24,065 23,905					HST servicing mission
60	60	103	22,296	171				Wake Shield Facility (d+r)	3,785					WSF remained on RMS while deployed
61	61	102	19,972											
62	59	105	27,447											
63	65	102	24,282											Spacelab (IML-2)

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
64	64	103	20,417					SPARTAN-201 (d&r)	2840					
65	68	105	27,640											Space Radar Laboratory
66	66	104	18,135					CRISTA-SPAS (d&r)	7194					Spacelab (Atlas-3)
67	63	103	19,051	23				SPARTAN-204 (d&r)	2,617.0	ODERACS	23.0			Spacelab-3
68	67	105	20,067											ASTRO-2
69	71	104	17,941											First docking mission. Equipment and crew exchange occurred.
70	70	103	44,445	37,714						TDRS-G	37,575			Final TDRS Mission

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
71	69	105	25,346	7,206				SPARTAN-201(d&r) Wake Shield Facility (d&r)	2800 4358			Wake Shield Facility SPARTAN	4352 2758	Deployed and retrieved Wake Shield Facility and SPARTAN 201
72	73	102	25,310											U.S. Micro-gravity Laboratory-2
73	74	104	14,064	10,015 Russian Logistics				Docking Module and Solar Arrays (d)	9066					Delivered Russian Docking Module.
74	72	105	14,087			7,670 Space Flyer Unit		SPARTAN (d&r)	2,579					SFU Solar arrays jettisoned
75	75	102	23,353	1,494						Tethered Satellite System	1396			USMP OARE TSS Lost
76	76	104	14,152	2,814 Russian Logistics		736 Russian Logistics								Spacehab module
77	77	105	27,393	1,104				SPARTAN/IAE (d&r)	2,835	PAMS/STU	106			Spacelab

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
78	78	102	23,666											Spacelab
79	79	104	19,039	3,170 Russian Logistics		2,126 Russian Logistics								Docking mission. Double Spacehab Module flown
80	80	102	21,422	12,526 Orfeus SPA    WSF		12,428 Orfeus SPAS   WSF		Orfeus-SPA WSF	12,526					
81	81	104	19,156	5,717 Russian Logistics		6,282 Logistics								Double Spacehab Russian Resupply Mission
82	82	103	16,497	16,257			15933							HST Repair Mission
83	83	102	25,082											Microgravity Science Laboratory. Fuel cell anomaly shortened
84	84	104	28,329	3632 Russian Logistics		2576 Russian Logistics								Docking Mission. Double Spacehab Module flown.

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								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
85	94	102	25,556											Microgravity Science Laboratory -1. Reflight of STS-83.
86	85	103	24,933	7154 CRISTA SPAS		7022 CRISTA-SPAS		CRISTA-SPAS	7154					Deploy CRISTA-SPAS; and perform science experiments
87	86	104	21,293	5645 Russian Logistics		2715 Russian Logistics								Mir docking and resupply mission. Double Spacehab module flown

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